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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/028,440	12/28/2001	Arjen Brandsma	PB0007/US	4399
466	7590	05/19/2004	EXAMINER	
YOUNG & THOMPSON 745 SOUTH 23RD STREET 2ND FLOOR ARLINGTON, VA 22202			JOHNSON, VICKY A	
			ART UNIT	PAPER NUMBER
			3682	

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/028,440	BRANDSMA, ARJEN	
	Examiner	Art Unit	
	Vicky A. Johnson	3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-20 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-20 is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-16 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 4, 2004 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 6-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent Document 6-272737 to Kobayashi.

Kobayashi discloses a transmission belt comprising transverse elements (1) and an endless carrier (2), each transverse element provided with a rocking edge (RL, R, RS) showing a curvature for allowing neighboring transverse elements to mutually tilt about an substantially axially oriented contact line over a tilting angle, so that a part of the belt may pass along a longitudinally bent trajectory, characterized in that the curvature of the rocking edge notionally displaces the contact line in dependence on the tilting angle. The curvature of the rocking edge is defined by a plurality of radii that continuously increase in a radially inward direction. Each transverse element is provided

with a projection 7 longitudinally protruding from a principle plane thereof, having a protruding height that is smaller than a maximum tilting clearance in the belt's longitudinal direction at the location of the projection between two mutually contacting elements as seen in Figure 4. In the radial direction of the transmission belt the rocking edge at least partly coincides with the endless carrier. The curvature of the rocking edge is defined such that the contact line between two neighboring elements is located radially inward from the endless carrier. The transverse element is provided with an axial side face see Fig 1 for contact with a pulley and the rocking edge extends in the radial direction to approximately half a radial dimension of the axial side face.

In reference to claim 10, the prior art discloses the basic product as cited in claim 1. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. See MPEP § 2113.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 5, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent Document 6-272737 to Kobayashi.

Kobayashi discloses the claimed invention except for the radius within the specified range.

Art Unit: 3682

Kobayashi discloses that it is known in the art to provide a radius of curvature of the rocking edge that increases with an increased gear reduction ratio.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the rocking face of Kobayashi with a radius greater than 20 mm, in order to allow for a greater gear reduction ratio of a transmission.

6. Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent Document 6-272737 to Kobayashi in view of U.S. Patent No. 6,074,317 to Kobayashi.

Kobayashi discloses the claimed invention except for the belt being used in a CVT of a vehicle.

Kobayashi '317 discloses that it is known in the art to provide a belt with transverse elements having rocking edges in a CVT for a vehicle.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the belt of Kobayashi '737 with the vehicle having a CVT as taught by Kobayashi '317, as it is a common use in the art for such a belt.

The rocking edge of the transverse elements of Kobayashi '737 is such that the contact line between two neighboring elements is located radially inward from the endless carrier (see Fig 5). At a minimum radius of a bent trajectory part of the belt the displacement of the contact line is at a maximum, as it is at a maximum when the flat portions are contacting on their radially innermost edge.

Allowable Subject Matter

7. Claims 17-20 are allowed.

8. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Some further comments regarding the applicant's remarks are deemed appropriate.

The applicant argues that Kobayashi '737 reference fails to meet the limitations of claim 1 because the reference fails to disclose the curvature of the rocking edge having a plurality of radii that continuously increase in a radially inward direction. In Figures 4 and 5 of the Kobayashi '737 there are referenced three different radii RL , R , and RS . In the translation provided by the applicant, beginning in paragraph 20 Kobayashi '737 discusses the contact section of the principal plane and the convex circular face changing according to the pulley ratio. It goes on to state that when the pulley turns into a major diameter, the contact section moves to the pulley outer-diameter side of the convex circular face, to the pitch radius RL , which compared to the conventional pitch radius R , becomes large, which implies that it is increasing from R to RL (see Fig 4). It also states that the contact section moves to the pulley bore side of the convex circular face, the pitch radius is RS , and compared to the conventional pitch radius R , becomes small, which implies that it is decreasing from R to RS (see Fig 5). This also means that the convex circular face of Kobayashi '737 does not have a constant radius R , and therefore based on the definition provided in the applicant's argument is also non-circular.

Art Unit: 3682

Regarding claim 7, in paragraph 29 of the Kobayashi reference it states that the convex circular face (6) tapers off to the principal plane (3). Therefore it meets the limitation of the claim.

Upon further consideration, it is agreed that the Kobayashi '737 reference fails to disclose an elliptical curvature for the rocking edge.

The applicant's remarks have been given due consideration, however, they are not deemed fully persuasive.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vicky A. Johnson whose telephone number is (703) 305-3013. The examiner can normally be reached on Monday-Thursday (7:00a-5:00p).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Bucci can be reached on (703) 308-3668. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

vaj

[Handwritten signature] 5/14/04

[Handwritten signature] 5/17/04
DAVID A. BUCCI
SUPERVISORY PATENT EXAMINER
TECHNICAL CENTER 3682